CITGO Petroleum Corporation
Cumberland County
South Portland, Maine
A-460-70-E-A

Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #1

After review of the Part 70 License amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, § 344 and § 590, the Department finds the following facts:

I. Registration

A. Introduction

FACILITY	CITGO Petroleum Corporation (CITGO)
RENEWAL LICENSE NUMBER	A-460-70-D-R
LICENSE TYPE	Part 70 Significant Modification
NAICS CODES	42271
NATURE OF BUSINESS	Bulk petroleum storage and distribution
FACILITY LOCATION	102 Mechanic Street, South Portland
RENEWAL LICENSE ISSUANCE DATE	February 26, 2007
AMENDMENT ISSUANCE DATE	December 11, 2007
LICENSE EXPIRATION DATE	February 26, 2012

B. Modification Description

CITGO is licensed to operate a loading rack with associated vapor combustion unit (VCU). The VCU is a John Zink thermal oxidizer which consists of six burners; two burners in stage 1 and four burners in stage 2. The VCU utilizes propane as a pilot and auxiliary fuel.

Their current air emission license requires the VCU to obtain a minimum operating temperature of 400°F prior to allowing loading to begin to comply with an emission limit of 10 mg/liter of product loaded. On May 14, 2007 CITGO performed stack testing on the VCU which was observed by the Department. At this test the VCU was run without assist gas for either pre-heating or maintaining the 400°F set-point. A result of 3.52 mg/L was achieved. This performance was better than the test run on May 11, 2006 when the minimum 400°F set-point was maintained. The May 11th test resulted in 5.07 mg/L.

Based on this data, CITGO has proposed removing the requirement to pre-heat and maintain a temperature of 400°F in the VCU. They have also proposed changing their Compliance Assurance Monitoring (CAM) indicator from a minimum VCU combustion chamber temperature to presence of pilot flame.

C. Application Classification

The application for CITGO is determined to be a substantial change in existing monitoring conditions. Therefore, this license amendment is considered to be a Part 70 Significant Modification issued under *Part 70 Air Emission License Regulations*, 06-096 CMR 140 and has been processed as such.

D. Compliance Assurance Monitoring

The revised CAM plan monitoring approach for the VCU is the following:

	Indicator #1
Indicator	Presence of Flame
General Criteria	
Measurement Method	Flame presence is monitored with a photoeye.
Indicator Range	An electrical signal generated by the photoeye indicates pilot flame is present while loss of signal indicates the pilot flame is absent. Computer interlocks ensure that no vapors are introduced into the VCU unless a pilot flame is present. If signal is lost during loading, the loading rack shuts down until the problem is identified and repairs are completed. The excursion is reported.
Performance Criteria	
Data Representativeness	The photoeye monitors the presence of pilot flame in the VCU on a continuous basis during operation. When a VCU start up signal is present and the flame is absent or unproven the scanner signal and VCU PLC will remove the permissive signal to load at the rack.
QA/QC	The photoeye is designed to fail in the safe mode (no flame present). Preventative maintenance of the VCU, including photoeye, is performed by a qualified technician on an annual basis at a minimum.
Monitoring Frequency	The presence of a pilot light must be detected upon start-up and is monitored continuously during operation.
Data Collection Procedure	VCU faults/alarms will be recorded on a fault/alarm log by the terminal operators with date, time, reason for the fault/alarm, and action taken.
Averaging Period	none

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this sources:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-460-70-E-A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the standard and special conditions below.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 CMR 115 for making such changes and pursuant to the applicable requirements in 06-096 CMR 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

Condition (14)(H) of Air Emission License A-460-70-D-R is deleted.

The following shall replace Condition (15)(A):

(15) **Compliance Assurance Monitoring**

A. VOC CAM for the VCU [40 CFR Part 64]

	Indicator #1
Indicator	Presence of Flame
General Criteria	
Measurement Method	Flame presence is monitored with a photoeye.
Indicator Range	An electrical signal generated by the photoeye indicates pilot flame is present while loss of signal indicates the pilot flame is absent. Computer interlocks ensure that no vapors are introduced into the VCU unless a pilot flame is present. If signal is lost during loading, the loading rack shuts down until the problem is identified and repairs are completed. The excursion is reported.
Performance Criteria	
Data Representativeness	The photoeye monitors the presence of pilot flame in the VCU on a continuous basis during operation. When a VCU start up signal is present and the flame is absent or unproven the scanner signal and VCU PLC will remove the permissive signal to load at the rack.
QA/QC	The photoeye is designed to fail in the safe mode (no flame present). Preventative maintenance of the VCU, including photoeye, is performed by a qualified technician on an annual basis at a minimum.
Monitoring Frequency	The presence of a pilot light must be detected upon start-up and is monitored continuously during operation.
Data Collection Procedure	VCU faults/alarms will be recorded on a fault/alarm log by the terminal operators with date, time, reason for the fault/alarm, and action taken.
Averaging Period	none

The following shall replace Condition (20) of Air Emission License A-460-70-D-R:

(20) **Monitoring and Recordkeeping Requirements**
[MEDEP Chapters 140, 117, and 122]

A. The following are identified as Periodic Monitors:
1. Presence of flame in the VCU;
2. Quantity and type of petroleum liquid stored in each tank;
3. Reid vapor pressure of all product stored;
4. Maximum true vapor pressure of all product stored;
5. Average storage temperature;
6. Average throughput in each tank;

7. Petroleum throughput from marine vessel loading operations;
8. Tank emissions calculated using EPA TANKS program;
9. Tank truck emissions assuming 1.3% of the vapors are displaced during loading (based on assumed capture efficiency of 98.7% as given in 40 CFR Part 63, Subpart R);
10. Marine vessel loading assuming 1.8 lb VOC/1000 gallons for gasoline and 0.006 lb VOC/1000 gallons for distillate as specified in US EPA's AP-42;
11. HAP speciation data;
12. Records of all monthly inspections and leak inspections of all equipment, utilizing sight, sound and smell.

B. The following are identified as CAM monitors [40 CFR Part 64]:

1. Presence of flame in the VCU.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAVID P. LITTELL, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-460-70-D-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 8/31/07
Date of application acceptance: 9/6/07

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.